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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,748	08/19/2003	Joel D. Oxman	58614US002	4133
32692 7590 10/24/2007 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			EXAMINER WILSON, JOHN J	
			ART UNIT 3732	PAPER NUMBER
			NOTIFICATION DATE 10/24/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/643,748	<b>Applicant(s)</b> OXMAN ET AL.	
	<b>Examiner</b> John J. Wilson	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

- A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 August 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 39 and 42-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39 and 42-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/21/07 8/29/07</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 39 and 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simor (3585723) in view of Neustadter (3565387), Ivanov et al (4113499) and Wilson (5487663). Simor shows the method step of selecting an article form 10, column 5, lines 53-55, filling the form with a hardenable material, column 6, lines 21-2, placing the form on a tooth, column 6, lines 26-29, hardening the material, column 1, lines 66-71, cementing to the tooth as shown and reshaping the article form in the subject's mouth, column 6, lines 55-58, and column 8, lines 65-71. Simor does not show using an organic composition. Neustadter shows using an organic composition, column 2, lines 40-48. It would be obvious to one of ordinary skill in the art to modify Simor to use an organic composition as shown by Neustadter in order to make use of known plastics for making a tooth form. The above combination does not show using a composition that contains a surfactant. Ivanov teaches using a surfactant, column 3, lines 4-10, to improve the strength of a disposable mold form. It would be obvious to one of ordinary skill in the art to modify the above combination to include using a composition that includes a surfactant as shown by Ivanov in order to solve the problem of including

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sufficient strength in a mold form. The above combination does not show the step of removing the form. Wilson teaches that it is known to use a crown form as part of the final crown as taught by Simor, or in the alternative, to remove the form, see the Abstract of Wilson. It would be obvious to one of ordinary skill in the art to modify the above combination to include removing the form as taught by Wilson in order to make use of known alternatives in the art to obtain the desired final dental article. To use a curable or non-curable plastic is an obvious matter of choice in well known plastics to one of ordinary skill in the art.

Claims 45, 46, 48-55, 58 and 60-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simor (3585723) in view of Neustadter (3565387) and Wilson (5487663). Simor shows the method steps of selecting an article form 10, column 5, lines 53-55, having a reservoir as shown and comprising a plastic composition, column 3, line 71, in the form of a self-supporting structure as shown and being sufficiently malleable to be reshaped, column 6, line 11, filling the form with a hardenable material, column 6, lines 21-25, placing the form on a tooth, column 6, lines 26-29, hardening the material, column 1, lines 66-71, cementing to the tooth as shown and reshaping the article form in the subject's mouth, column 6, lines 55-58, and column 8, lines 65-71. Simor shows using plastic, however, does not show using an organic composition. Neustadter shows using an organic composition, column 2, lines 40-48. It would be obvious to one of ordinary skill in the art to modify Simor to use an organic composition as shown by Neustadter in order to make use of known plastics for making a tooth form.

The above combination does not show the step of removing the form. Wilson teaches that it is known to use a crown form as part of the final crown as taught by Simor, or in the alternative, to remove the form, see the Abstract of Wilson. It would be obvious to one of ordinary skill in the art to modify the above combination to include removing the form as taught by Wilson in order to make use of known alternatives in the art to obtain the desired final dental article. As to claim 46, see removing upon completion at column 4, lines 47-56 of Wilson. As to claims 48 and 49, Simor and Neustadter fail to show using a filler material. Wilson teaches using a filler, column 4, lines 40-45. It would be obvious to one of ordinary skill in the art to modify the above combination to include a filler material as shown by Wilson in order to add strength. The same citation also teaches the option of not using a filler. As to claim 51, Neustadter teaches using a curable composition, column 2, lines 40-48. As to claim 52, to use an initiator with a curable composition is very well known. As to claims 53 and 54, to use a non-curable plastic is an obvious matter of choice in well known plastics to one of ordinary skill in the art. As to claims 65 and 66, Simor shows a dental article that is malleable and does not include slits.

Claims 47 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simor (3585723) in view of Neustadter (3565387) and Wilson (5487663) as applied to claim 45 above, and further in view of Ivanov et al (4113499). The above combination does not show using a composition that contains a surfactant. Ivanov teaches using a surfactant, column 3, lines 4-10, to improve the strength of a disposable

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mold form. It would be obvious to one of ordinary skill in the art to modify the above combination to include using a composition that includes a surfactant as shown by Ivanov in order to solve the problem of including sufficient strength in a mold form.

Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simor (3585723) in view of Neustadter (3565387) and Wilson (5487663) as applied to claim 45 above, and further in view of Uthoff (5102332). The above combination does not show using a package. Uthoff teaches using a package 2. It would be obvious to one of ordinary skill in the art to modify the above combination to include a package as shown by Uthoff in order to ship and protect the article.

Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simor (3585723) in view of Neustadter (3565387) and Wilson (5487663) as applied to claim 45 above, and further in view of Kahn (3949476). The above combination does not show a handle removed from the base. Kahn teaches using a handle 18, column 2, lines 29-34, that as shown, is removed from the base. It would be obvious to one of ordinary skill in the art to modify the above combination to include a handle as shown by Kahn in order to better manipulate the article in the mouth.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11

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F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 39 and 42-66 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-54, 56-73, 75 and 79-88 of copending Application No. 10/219,398 in view of Neustadter (3565387). The claims of the '398 application teach using an organic composition that is self-supporting and malleable, however, do not show using a form that is capable of being filled. Neustadter teaches using a form that is capable of being filled. It would be obvious to one of ordinary skill in the art to modify the '398 claims to include a form as shown by Neustadter in order to obtain the desired size and shape. To include a reservoir of material would have been obvious in order to supply the needed filling material. The specific material used is an obvious matter of choice in known plastics to the skilled artisan. To use a handle would have been obvious to one of ordinary skill in the art in order to better manipulate the form. Shaping in the mouth is well known for making adjustment to reconstructive work in the mouth.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Information Disclosure Statement***

The IDS filed August 21, 2007 and the IDS filed August 29, 2007 have been considered and initialed copies are attached.

***Response to Arguments***

Applicant's arguments filed August 21, 2007 have been fully considered but they are not persuasive. Applicant argues that Neustadter shows a slot and that it is this slot that gives the dental article the property that allows it to be shaped, as such, it is argued that Neustadter does not sufficiently teach, or does not teach, that the material is malleable. This argument is disagreed with because Neustadter teaches the "pattern is made of plastic material or a suitable metal such as gold, having sufficient softness or pliability so that it can be modified to suit the dental technician as to shape, and/or dimension and having sufficient retentivity so that the pattern remains fixed in the adjusted or modified form", last sentence of the Abstract, and teaches the "plastic pattern should have the characteristic of (1) softness or pliability so that it can be adapted or modified by the technician and (2) retentivity so that it retains its modified shape", column 2, lines 52-56. The above teachings that the plastic "retains its modified shape" teaches one of ordinary skill in the art that the material is malleable. Further, it is noted that while Neustadter teaches a slot to help in adjusting the article, materials having slots can be bent and hold their shape, malleable, or can be bent and spring back to the original shape, not malleable. Therefore, the slot of Neustadter does not determine this property. In view of the above, an overall reading of the Neustadter



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reference would teach one of ordinary skill in the art to use a plastic that is malleable. With respect to the limitation of not including a slot, Simor teaches using an article without a slot, while Neustadter has been applied to teach the material used. For the reasons stated above, the presence of slots in Neustadter does not obviate the teaching for which it is used.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Wilson whose telephone number is 571-272-4722). The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez, can be reached at 571-272-4964). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

***/John J Wilson/  
Primary Examiner  
Art Unit 3732***

jw  
October 16, 2007